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                     SEQUENCE LISTING

<110>  Watkins, Jeffry  D.
       Vasserot, Alain P.
       Marquis , David
       Huse , William  D.

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<140>  PCT/US04/00290
<141>  2004-01-08

<150>  10/338,552
<151>  2003-01-08

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Glu Lys Val Thr Ile Thr Cys Arg Ala Ser Gln Phe Val Gly Ser Ser
            20                  25                  30


Ile His Trp Tyr Gln Gln Lys Pro Asp Gln Ser Pro Lys Leu Leu Ile
            35                  40                  45


Lys Tyr Ala Ser Glu Ser Met Ser Gly Val Pro Ser Arg Phe Ser Gly
    50                  55                  60


Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile Asn Ser Leu Glu Ala
65                  70                  75                  80


Glu Asp Ala Ala Thr Tyr Tyr Cys Gln Gln Ser His Ser Trp His Phe
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Thr Phe Gly Gln Gly Thr Lys Val Glu Ile Lys
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gatcagtctc caaagctcct catcaagtat gcttctgagt ctatgtctgg ggtcccctcg   180

aggttcagtg gcagtggatc tgggacagat ttcaccctca ccatcaatag cctggaagct   240

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Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Ser Asn His
            20   25   30

Trp Met Asn Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
            35   40   45

Gly Glu Ile Arg Ser Lys Ser Ile Asn Ser Ala Thr His Tyr Ala Glu
        50   55   60

Ser Val Lys Gly Arg Phe Thr Ile Ser Arg Asp Asp Ser Lys Asn Ser
65   70   75   80

Leu Tyr Leu Gln Met Asn Ser Leu Lys Thr Glu Asp Thr Ala Val Tyr
                85   90   95

Tyr Cys Ala Arg Asn Tyr Tyr Gly Ser Thr Tyr Asp His Trp Gly Gln
                100   105   110

Gly Thr Leu Val Thr Val Ser Ser
            115   120

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ccagggaagg ggctggagtg ggttggcgaa attagatcaa aatctattaa ttctgcaaca     180

cattatgcgg agtctgtgaa agggagattc accatctcaa gagatgattc aaagaactca     240

ctgtacctgc agatgaacag cctgaaaacc gaggacacgg ccgtgtatta ctgtgctaga     300

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Glu Ile Val Leu Thr Gln Ser Pro Asp Phe Gln Ser Val Thr Pro Lys
1   5   10   15

Glu Lys Val Thr Ile Thr Cys Arg Ala Ser Gln Phe Val Gly Tyr Ser
            20   25   30

Ile His Trp Tyr Gln Gln Lys Pro Asp Gln Ser Pro Lys Leu Leu Ile
        35   40   45

Lys Tyr Ala Ser Glu Ser Arg Ser Gly Val Pro Ser Arg Phe Ser Gly
    50   55   60

Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile Asn Ser Leu Glu Ala
65   70   75   80

Glu Asp Ala Ala Thr Tyr Tyr Cys Gln Gln Ser His Ser Trp His Phe
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aggttcagtg gcagtggatc tgggacagat ttcaccctca ccatcaatag cctggaagct     240

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Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Lys Phe Ser Asn His
            20                  25                  30


Trp Met Asn Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
        35                  40                  45


Gly Glu Ile Arg Ser Lys Ser Met Asn Ser Ala Thr His Tyr Ala Glu
    50                  55                  60


Ser Val Lys Gly Arg Phe Thr Ile Ser Arg Asp Asp Ser Lys Asn Ser
65                  70                  75                  80


Leu Tyr Leu Gln Met Asn Ser Leu Lys Thr Glu Asp Thr Ala Val Tyr
                85                  90                  95


Tyr Cys Ala Arg Asn Tyr Tyr Gly Ser Thr Tyr Asp His Trp Gly Gln
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Gly Thr Leu Val Thr Val Ser Ser
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ccagggaagg ggctggagtg ggttggcgaa attagatcaa aatctatgaa ttctgcaaca     180
cattatgcgg agtctgtgaa agggagattc accatctcaa gagatgattc aaagaactca     240
ctgtacctgc agatgaacag cctgaaaacc gaggacacgg ccgtgtatta ctgtgctaga     300
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1   5

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1   5

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1   5

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Tyr Ala Ser Glu Ser Lys Ser
1   5

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tatgcttctg agtctaagtc t   21

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1   5

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1               5


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1   5

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Gly Phe Thr Phe Ser Asn His Trp Met Asn
1   5   10

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<400>   37

Gly Phe Lys Phe Ser Asn His Trp Met Asn
1   5   10

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1   5   10

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Val Lys Gly

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Glu Ile Arg Ser Lys Ser Met Asn Ser Ala Thr His Tyr Ala Glu Ser
1   5   10   15

Val Lys Gly

<210> 46
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1               5                   10                  15


Val Lys Gly



<210>  48
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Glu Ile Arg Ser Lys Ser Ile Asn Ser Ala Thr His Tyr Ala Arg Ser
1               5                   10                  15


Val Lys Gly



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Val Lys Gly


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Asn Tyr Tyr Gly Ser Thr Tyr Asp His
1               5
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Glu Ile Arg Ser Lys Ser Met Asn Ser Ala Thr His Tyr Ala Arg Ser
1               5                   10                  15


Val Lys Gly


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Glu Ile Val Leu Thr Gln Ser Pro Asp Phe Gln Ser Val Thr Pro Lys
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Glu Lys Val Thr Ile Thr Cys
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<400> 58

Trp Tyr Gln Gln Lys Pro Asp Gln Ser Pro Lys Leu Leu Ile Lys
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Gly Val Pro Ser Arg Phe Ser Gly Ser Gly Ser Gly Thr Asp Phe Thr
1   5   10   15

Leu Thr Ile Asn Ser Leu Glu Ala Glu Asp Ala Ala Thr Tyr Tyr Cys
            20   25   30

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Phe Gly Gln Gly Thr Lys Val Glu Ile Lys
1   5   10

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<210>   63
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agcctggaag ctgaagatgc tgccacgtat tactgt   96

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<213>   Homo sapiens

<400>   65

Glu Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val Gln Pro Gly Gly
1               5                   10                  15


Ser Leu Arg Leu Ser Cys Ala Ala Ser
            20                  25


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<400>   66

Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val Gly
1               5                   10


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<400>   67

Arg Phe Thr Ile Ser Arg Asp Asp Ser Lys Asn Ser Leu Tyr Leu Gln
1               5                   10                  15


Met Asn Ser Leu Lys Thr Glu Asp Thr Ala Val Tyr Tyr Cys Ala Arg
            20                  25                  30


<210>   68
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<400>   68

Trp Gly Gln Gly Thr Leu Val Thr Val Ser Ser
1               5                   10


<210>   69
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<212>   DNA
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tcctgtgcag cctct   75

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<400> 70
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<210> 71
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aaaaccgagg acacggccgt gtattactgt gctaga   96

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<400> 73

Arg Ala Pro Gln Phe Val Gly Ser Ser Ile His
1   5   10

<210> 74
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<400> 74
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1               5                   10


<210>   76
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<212>   PRT
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<400>   77

Arg Ala Ser Gln Phe Val Tyr Ser Ser Ile His
1               5                   10


<210>   78
<211>   33
<212>   DNA
<213>   Artificial

<220>
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agggccagtc agttcgttta ttcaagcatc cac                                    33


<210>   79
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<400>   79

Arg Ala Ser Gln Phe Val Xaa Ser Ser Ile His
1                   5                   10


<210>   80
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<212>   DNA
<213>   Artificial

<220>
<223>   Synthetic Construct


<220>
<221>   misc_feature
<222>   (19)..(21)
<223>   The residues in these positions could be any amino acid

<400>   80
agggccagtc agttcgttnn ntcaagcatc cac                              33


<210>   81
<211>   9
<212>   PRT
<213>   Artificial

<220>
<223>   Synthetic Construct

<400>   81

Gln Gln Ser His Trp Trp His Phe Thr
1                   5


<210>   82
<211>   27
<212>   DNA
<213>   Artificial

<220>
<223>   Synthetic Construct

<400>   82
caacaaagtc attggtggca tttcacg                                     27


<210>   83
<211>   9
```

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<212>   PRT
<213>   Artificial

<220>
<223>   Synthetic Construct


<220>
<221>   MISC_FEATURE
<222>   (5)..(5)
<223>   The residue in this position could be any amino acid

<400>   83

Gln Gln Ser His Xaa Trp His Phe Thr
1               5


<210>   84
<211>   27
<212>   DNA
<213>   Artificial

<220>
<223>   Synthetic Construct


<220>
<221>   misc_feature
<222>   (13)..(15)
<223>   The residues in these positions could be any amino acid

<400>   84
caacaaagtc atnnntggca tttcacg                                              27


<210>   85
<211>   357
<212>   DNA
<213>   Homo sapiens

<400>   85
tcagcctcca ccaagggccc atcggtcttc cccctggcac cctcctccaa gagcacctct        60

ggggggcacag cggccctggg ctgcctggtc aaggactact ccccgaacc ggtgacggtg        120

tcgtggaact caggcgccct gaccagcggc gtgcacacct tcccggctgt cctacagtcc        180

tcaggactct actccctcag cagcgtggtg accgtgccct ccagcagctt gggcacccag        240

acctacatct gcaacgtgaa tcacaagccc agcaacacca aggtggacaa gaaagcagag        300

cccaaatctt ctactagtgt tctctaccca tatgatgtac ctgattatgc atcatag          357


<210>   86
<211>   324
<212>   DNA
<213>   Homo sapiens

<400>   86
cgaactgtgg ctgcaccatc tgtcttcatc ttcccgccat ctgatgagca gttgaaatct        60

ggaactgcct ctgttgtgtg cctgctgaat aacttctatc ccagagaggc caaagtacag        120
```

```
tggaaggtgg ataacgccct ccaatcgggt aactcccagg agagtgtcac agagcaggac      180

agcaaggaca gcacctacag cctcagcagc accctgacgc tgagcaaagc agactacgag      240

aaacacaaag tctacgcctg cgaagtcacc catcagggcc tgagctcgcc cgtcacaaag      300

agcttcaaca ggggagagtc ttag                                             324
```

```
<210>   87
<211>   39
<212>   DNA
<213>   Artificial

<220>
<223>   Synthetic Construct

<400>   87
tggctcccag gtgccaaatg tgaaattgtg ctgactcag                              39
```

```
<210>   88
<211>   21
<212>   DNA
<213>   Artificial

<220>
<223>   Synthetic Construct

<400>   88
tggctcccag gtgccaaatg t                                                 21
```

```
<210>   89
<211>   21
<212>   DNA
<213>   Artificial

<220>
<223>   Synthetic Construct

<400>   89
gacagatggt gcagccacag t                                                 21
```

```
<210>   90
<211>   39
<212>   DNA
<213>   Artificial

<220>
<223>   Synthetic Construct

<400>   90
ctctccacag gtgtccactc ccaggtccaa ctgcaggtc                              39
```

```
<210>   91
<211>   21
<212>   DNA
<213>   Artificial

<220>
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<223> Synthetic Construct

<400> 91
ctctccacag gtgtccactc c   21

<210> 92
<211> 21
<212> DNA
<213> Artificial

<220>
<223> Synthetic Construct

<400> 92
gaagaccgat gggcccttgg t   21

<210> 93
<211> 11
<212> PRT
<213> Artificial

<220>
<223> Synthetic Construct

<400> 93

Val Thr Thr Gln Phe Val Gly Tyr Ala Ile His
1   5   10

<210> 94
<211> 33
<212> DNA
<213> Artificial

<220>
<223> Synthetic Construct

<400> 94
gttactactc agttcgttgg ctatgctatc cac   33

<210> 95
<211> 7
<212> PRT
<213> Artificial

<220>
<223> Synthetic Construct

<400> 95

Tyr Ala Ser Ser Ser Arg Ser
1   5

<210> 96
<211> 21
<212> DNA
<213> Artificial

<220>

<223> Synthetic Construct

<400> 96
tatgcttctt cgtctaggtc t   21

<210> 97
<211> 9
<212> PRT
<213> Artificial

<220>
<223> Synthetic Construct

<400> 97

Gln Gln Ser His Gly Trp Pro Phe Thr
1   5

<210> 98
<211> 27
<212> DNA
<213> Artificial

<220>
<223> Synthetic Construct

<400> 98
caacaaagtc atgggtggcc tttcacg   27

<210> 99
<211> 10
<212> PRT
<213> Artificial

<220>
<223> Synthetic Construct

<400> 99

Gly Phe Lys Phe Arg Asn His Trp Met Asn
1   5   10

<210> 100
<211> 30
<212> DNA
<213> Artificial

<220>
<223> Synthetic Construct

<400> 100
ggattcaagt tccgtaacca ctggatgaac   30

<210> 101
<211> 10
<212> PRT
<213> Artificial

<220>

<223>   Synthetic Construct

<400>   101

Gly Phe Asp Phe Arg Asn His Trp Met Asn
1   5   10

<210>   102
<211>   30
<212>   DNA
<213>   Artificial

<220>
<223>   Synthetic Construct

<400>   102
ggattcgatt tccggaacca ctggatgaac   30

<210>   103
<211>   19
<212>   PRT
<213>   Artificial

<220>
<223>   Synthetic Construct

<400>   103

Glu Ile Arg Ser Lys Ser Met Asn Ser Ala Thr Phe Tyr Ala Glu Ser
1   5   10   15

Val Lys Gly

<210>   104
<211>   57
<212>   DNA
<213>   Artificial

<220>
<223>   Synthetic Construct

<400>   104
gaaattagat caaaatctat gaattctgca acattttatg cggagtctgt gaaaggg   57

<210>   105
<211>   11
<212>   PRT
<213>   Artificial

<220>
<223>   Synthetic Construct

<400>   105

Ala Ala Ser Gln Phe Val Gly Gln Ala Ile His
1   5   10

```
<210>   106
<211>   33
<212>   DNA
<213>   Artificial

<220>
<223>   Synthetic Construct

<400>   106
gcggcttctc agttcgttgg ccaggcgatc cac                            33


<210>   107
<211>   7
<212>   PRT
<213>   Artificial

<220>
<223>   Synthetic Construct

<400>   107

Tyr Ala Asn Glu Ser Arg Ser
1               5


<210>   108
<211>   21
<212>   DNA
<213>   Artificial

<220>
<223>   Synthetic Construct

<400>   108
tatgctaatg agtctaggtc t                                         21


<210>   109
<211>   39
<212>   DNA
<213>   Artificial

<220>
<223>   Synthetic Construct

<400>   109
tggctcccag gtgccaaatg tgaaattgtg ctgactcag                      39


<210>   110
<211>   21
<212>   DNA
<213>   Artificial

<220>
<223>   Synthetic Construct

<400>   110
tggctcccag gtgccaaatg t                                         21


<210>   111
<211>   21
```

```
<212>   DNA
<213>   Artificial

<220>
<223>   Synthetic Construct

<400>   111
gacagatggt gcagccacag t                                              21


<210>   112
<211>   39
<212>   DNA
<213>   Artificial

<220>
<223>   Synthetic Construct

<400>   112
ctctccacag gtgtccactc ccaggtccaa ctgcaggtc                           39


<210>   113
<211>   21
<212>   DNA
<213>   Artificial

<220>
<223>   Synthetic Construct

<400>   113
ctctccacag gtgtccactc c                                              21


<210>   114
<211>   21
<212>   DNA
<213>   Artificial

<220>
<223>   Synthetic Construct

<400>   114
gaagaccgat gggcccttgg t                                              21
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